



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/670,787	09/26/2003	Seung Jun Han	8733.597.01	4358
30827	7590	05/09/2006	EXAMINER	
MCKENNA LONG & ALDRIDGE LLP			HAN, JASON	
1900 K STREET, NW			ART UNIT	
WASHINGTON, DC 20006			PAPER NUMBER	
			2875	

DATE MAILED: 05/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/670,787

Applicant(s)

HAN ET AL.

Examiner

Jason M. Han

Art Unit

2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 28, 2006 has been entered.

Response to Arguments

2. Applicant's arguments with respect to Claims 1-7 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

3. Claims 1 and 3-7 are objected to because of the following informalities: Applicant recites the limitations, "low pressure electrode" and "high pressure electrode", which are not recognized terms in the art. Discharge gas lamp tubes do not differentiate between one electrode being of low pressure and the other being of high pressure within a lamp envelope. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

Art Unit: 2875

applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1 and 3-4 are rejected under 35 U.S.C. 102(e) as being anticipated by

Chou et al. (U.S. Patent 6949890).

5. With regards to Claim 1, Chou discloses a backlight unit including:

- A lamp housing [Figure 5; Column 1, Lines 14-16 – inherent]; and
- A plurality of lamps [Figure 3: (31)] respectively having a low pressure electrode [Figure 3: (32)] and a high pressure electrode [Figure 3: (33)] and arranged in the lamp housing so that the low pressure and the high pressure electrodes are alternately disposed in one side of the lamp housing.

6. With regards to Claim 3, Chou discloses the low pressure [Figure 3: (32)] and high pressure electrodes [Figure 3: (33)] respectively arranged in a zigzag fashion.

7. With regards to Claim 4, Chou discloses the low pressure [Figure 3: (32)] and high pressure [Figure 3: (33)] electrodes being alternately arranged by a number greater than 2 in one side of the lamp housing (e.g., 4 lamps in Figure 4).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2875

8. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chou et al. (U.S. Patent 6949890) as applied to Claim 1 above, and further in view of Itoh (U.S. Publication 2002/0030993 A1).

Chou discloses the claimed invention as cited above, but does not specifically teach a diffusion plate located on the lamp housing; and an optical sheet located on the diffusion plate.

Itoh teaches a backlight assembly including a diffusion plate [Figure 1: (3)] located on a lamp housing, and an optical sheet [Page 3, Paragraph 38] located on the diffusion plate.

It would have been obvious to one ordinarily skilled in the art at the time of invention to modify the backlight unit of Chou to incorporate the diffusion plate and optical sheet of Itoh in order to efficiently utilize the illumination for the LCD device, whereby said diffuser and optical sheet are used to affect and improve optical characteristics.

9. Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chou et al. (U.S. Patent 6949890) in view of Saito et al. (U.S. Patent 6992736).

10. With regards to Claim 5, Chou discloses a backlight unit for an LCD [see Title] including:

- A lamp housing [Figure 5; Column 1, Lines 14-16 – inherent]; and
- A plurality of lamps [Figure 3: (31)] respectively having a low pressure electrode [Figure 3: (32)] and a high pressure electrode [Figure 3: (33)] and

Art Unit: 2875

arranged in the lamp housing so that the low pressure and the high pressure electrodes are alternately disposed in one side of the lamp housing.

Chou does not specifically teach the particulars of the backlight or LCD, wherein a diffusion plate is disposed on the lamp housing, an optical sheet is disposed on the diffusion plate, and a liquid crystal panel is disposed on the backlight unit and has a plurality of liquid crystal cells arranged in matrix form.

Saito teaches an LCD device including a diffusion plate [Figure 7: (LDS)] disposed on top of a lamp housing, an optical sheet [Figure 7: (PRS)] disposed on the diffusion plate, and a liquid crystal panel [Figure 7: (PNL)] disposed on top thereof and having a plurality of liquid crystal cells arranged in matrix form [Column 3, Line 66 – Column 4, Line 4].

It would have been obvious to one ordinarily skilled in the art at the time of invention to incorporate the simple matrix driving type LCD with diffusion and optical sheets of Saito into the LCD device of Chou. Such a configuration is an obvious matter of design and commonly known within the art.

11. With regards to Claim 6, Chou in view of Saito discloses the claimed invention as cited above. In addition, Chou teaches the low pressure [Figure 3: (32)] and high pressure electrodes [Figure 3: (33)] respectively arranged in a zigzag fashion.

12. With regards to Claim 7, Chou in view of Saito discloses the claimed invention as cited above. In addition, Chou teaches the low pressure [Figure 3: (32)] and high pressure [Figure 3: (33)] electrodes being alternately arranged by a number greater than 2 in one side of the lamp housing (e.g., 4 lamps in Figure 4).

Art Unit: 2875

Conclusion

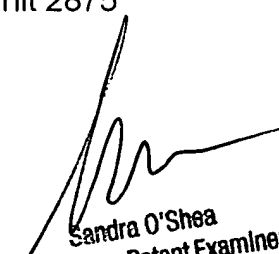
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason M. Han whose telephone number is (571) 272-2207. The examiner can normally be reached on 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (571) 272-2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jason M Han
Examiner
Art Unit 2875

JMH (5/3/2006)



Sandra O'Shea
Supervisory Patent Examiner
Technology Center 2800